

A B S T R A C T

A vibration motor comprising at least one stationary part and one part driven to move relative to said fixed part, together with excitation means suitable for exerting forces that tend to move rigid contact sectors presented by said fixed part and/or said moving part and to cause said rigid sectors to vibrate in vibration modes that combine tangential vibration and normal vibration, thereby driving the movement of the moving part, said motor presenting for the tangential vibration or the normal vibration a main resonant mode and at least one secondary resonant mode, wherein the secondary resonant mode is at a frequency that is substantially equal to a harmonic frequency of the main resonant mode.